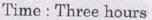
APRIL/MAY 2024

CBC41/FBC41 — PLANT BIOCHEMISTRY



Maximum: 75 marks



SECTION A — $(10 \times 2 = 20 \text{ marks})$

Answer ALL questions.

What is chlorophyll?

- 2. Explain the importance of photosynthesis
- 3. What are flavonoids?
- 4. Outline the plant hormones.
- 5. What is asymbiotic nitrogen fixation?
- 6. Explain the role of Nitrite reductase.
- 7. How do salinity affect plants?
- 8. Outline the effects of protein toxins.
- 9. Show the various ROS produced in plants.
- 10. Summarize the importance of SOD.

SECTION B — $(5 \times 5 = 25 \text{ marks})$

Answer ALL the questions.

11. (a) Identify the steps in Photorespiration.

Or

- (b) Examine the reactions of calvin cycle.
- 12. (a) Identify the functions of ethylene.

Or

- (b) Examine the importance of ABA in plants.
- 13. (a) Organize the steps in nitrogen assimilation.

Or

- (b) Analyze the mechanism by which nitrogen compound are formed in plants.
- 14. (a) Identify the effects of water stress on plants.

Or

- (b) Examine the role of protease inhibitors briefly.
- 15. (a) Organize the sources and effects of ROS in plants.

Or

(b) Analyze the role of Ascorbic acid in scavenging free radicals.

372

SECTION C — $(3 \times 10 = 30 \text{ marks})$

Answer any THREE questions.

- 16. Elaborate on the reactions of Callus cycle.
- 17. Deduce the salient features of cytokinins with their structure.
- 18. Explain the steps involved in nitrogen fixation.
- 19. Elaborate the various stress in plants.
- 20. Discuss the role of antioxidant machinery in plants.